

Working to Reduce Parasitic Diseases in the United States



Center for Global Health

Division of Parasitic Diseases and Malaria

Parasitic diseases not only affect people globally, they also affect many people in the United States. CDC works with partners to reduce parasitic diseases both within the United States and globally by:

- Conducting public health surveillance to monitor disease trends to evaluate and improve programs.
- Improving diagnostic, prevention, and disease monitoring methods through research.
- Assisting states and health care providers with the diagnosis and treatment of patients.

Monitoring and Public Health Surveillance

CDC monitors and conducts public health surveillance on several parasitic diseases. Babesiosis, cyclosporiasis, and trichinellosis are among the nationally notifiable diseases that CDC tracks. Some parasitic diseases, such as Chagas disease, can be transmitted from infected mother to baby and also via blood transfusion and organ transplantation. Monitoring this information shows who is infected and helps CDC and partners decide on how to best reduce disease transmission.



Epidemiologic Investigations and Research

CDC studies the epidemiology and clinical burden of parasitic diseases, which helps CDC advise on prevention and treatment. CDC works in partnership with state and local health departments, and other federal agencies as well as academic, clinical and professional organizations to investigate and conduct research on parasitic diseases in the United States. This includes:

- Assisting clinicians in Texas to screen mothers for Chagas disease to measure the risk of congenital transmission to babies born in the United States.
- Working with the American Academy of Ophthalmologists to assess the burden of preventable blindness due to ocular toxocariasis, estimating that as many as 60 children may lose sight in an eye from this disease every year.
- Assisting with an investigation of an outbreak of *Trichinella* infection in a group of people in California who ate undercooked bear meat.



Drug Service

The CDC Drug Service distributes otherwise unavailable drugs for many serious, even life-threatening parasitic diseases to treat U.S. patients. In 2011, CDC distributed over 100 drug courses to treat patients with parasitic diseases such as Chagas disease, leishmaniasis, and lymphatic filariasis.

Parasitic Diseases Laboratory Services

The Parasitic Diagnostic Reference Laboratory serves as a national reference laboratory for the diagnosis of many parasitic diseases, performing some 10,000 tests yearly. The laboratory also provides teleradiology, a process of reviewing electronically submitted digital images sent to CDC through its DPDx website (<http://www.dpd.cdc.gov/DPDx/>). CDC is working with select state health departments on real-time teleradiology, where CDC and microbiologists in laboratories review microscope slides together and often come to an immediate diagnosis (faster and less costly than having to send physical specimens to CDC). The DPDx program includes a website with a reference library of parasite images and descriptions of diagnostic procedures. It also includes monthly training via an email listserve.

CDC's parasitic diseases laboratories developed many of the gold standard tests that are used nationally for select parasitic diseases, such as schistosomiasis, strongyloidiasis and cryptosporidiosis. Efforts continue to develop tests for other parasitic diseases.

Clinical Consultation

Many U.S. health care providers are unfamiliar with the diagnosis and treatment of parasitic diseases. To help solve this problem, CDC experts provide clinical consultations via telephone and email 24/7. CDC receives approximately 150 inquiries monthly. CDC also provides diagnostic and treatment guidelines on parasitic diseases.

Health Education and Resources

The CDC Parasitic Diseases website provides information on more than 50 parasitic diseases, in response to a high volume of requests for information. CDC produces health education materials and resources for the general public and health care providers, including fact sheets and podcasts. The Chagas disease, cysticercosis, and lice websites are also available in Spanish.

Since many parasitic diseases can affect Americans, CDC aims to increase awareness of these diseases in the United States. A group of lesser known parasitic diseases, termed Neglected Parasitic Infections (NPIs), cause significant burden on many Americans, mostly those who are disadvantaged. CDC has collaborated with the American Academy of Pediatrics to inform pediatricians of these diseases via professional health communications articles. Continuing Medical Education (CME) and Continuing Nursing Education (CNE) units can be earned on Chagas disease, an NPI, through health education materials located on the CDC website. More topics and other articles for health care providers are in development.

